**Amendments to the Claims**:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-4. (Canceled)

5. (Previously Presented) A magnetoresistive device comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, wherein:

at least one of the electrode layers overlaps one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.6 μm.

6-9. (Canceled)

10. (Previously Presented) A method of manufacturing a magnetoresistive device comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, the method including the steps of:

forming the magnetoresistive element;

forming the bias field applying layers; and

forming the electrode layers, wherein:

at least one of the electrode layers are located to overlap one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther

from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.6 μm.

11-14. (Canceled)

15. (Previously Presented) A thin-film magnetic head comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, wherein:

at least one of the electrode layers overlaps one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an

antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.6 μm.

16-19. (Canceled)

20. (Previously Presented) A method of manufacturing a thin-film magnetic head comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, the method including the steps of:

forming the magnetoresistive element;

forming the bias field applying layers; and

forming the electrode layers, wherein:

at least one of the electrode layers are located to overlap one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.6 μm.

21. (Previously Presented) The magnetoresistive device according to claim 5 wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

22. (Previously Presented) The magnetoresistive device according to claim 5 wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

23. (Previously Presented) The method according to claim 10 wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a

length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

24. (Previously Presented) The method according to claim 10 wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

25. (Previously Presented) The thin-film magnetic head according to claim 15 wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

26. (Previously Presented) The thin-film magnetic head according to claim 15 wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

27. (Previously Presented) The method according to claim 20 wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

28. (Previously Presented) The method according to claim 20 wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

29. (New) A magnetoresistive device comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of

each of the bias field applying layers, wherein:

at least one of the electrode layers overlaps one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.4 μm.

30. (New) The magnetoresistive device according to claim 29, wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

31. (New) The magnetoresistive device according to claim 29, wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

32. (New) A method of manufacturing a magnetoresistive device comprising:

a magnetoresistive element having two surfaces that face toward opposite

directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, the method including the steps of:

forming the magnetoresistive element;

forming the bias field applying layers; and

forming the electrode layers, wherein:

at least one of the electrode layers are located to overlap one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than

approximately 0.4 μm.

33. (New) The method according to claim 32, wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

34. (New) The method according to claim 32, wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

35. (New) A thin-film magnetic head comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, wherein:

at least one of the electrode layers overlaps one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.4 μm.

36. (New) The thin-film magnetic head according to claim 35, wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

37. (New) The thin-film magnetic head according to claim 35, wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.

38. (New) A method of manufacturing a thin-film magnetic head comprising:

a magnetoresistive element having two surfaces that face toward opposite directions and two side portions that connect the two surfaces to each other;

two bias field applying layers that are located adjacent to the side portions of the magnetoresistive element and apply a bias magnetic field to the magnetoresistive element; and

two electrode layers that feed a current used for signal detection to the magnetoresistive element, each of the electrode layers being adjacent to one of surfaces of each of the bias field applying layers, the method including the steps of:

forming the magnetoresistive element;

forming the bias field applying layers; and

forming the electrode layers, wherein:

at least one of the electrode layers are located to overlap one of the surfaces of the magnetoresistive element;

the magnetoresistive element incorporates: a nonmagnetic layer having two surfaces that face toward opposite directions; a soft magnetic layer adjacent to one of the surfaces of the nonmagnetic layer; a pinned layer, located adjacent to the other one of the surfaces of the nonmagnetic layer, whose direction of magnetization is fixed; and an antiferromagnetic layer located adjacent to one of surfaces of the pinned layer that is farther from the nonmagnetic layer, the antiferromagnetic layer fixing the direction of magnetization of the pinned layer;

the pinned layer includes a nonmagnetic spacer layer and two ferromagnetic layers that sandwich the spacer layer and have directions of magnetization fixed to opposite directions;

a total length of regions of the two electrode layers that are laid over the one of the surfaces of the magnetoresistive element is smaller than 0.3 μm; and

a space between the two electrode layers is equal to or smaller than approximately 0.4 μm.

39. (New) The method according to claim 38, wherein both of the two electrode layers overlap the one of the surfaces of the magnetoresistive element, and a length of the region of each of the two electrode layers that is laid over the one of the surfaces of the magnetoresistive element is smaller than 0.15 μm.

40. (New) The method according to claim 38, wherein the two bias field applying layers are located off one of the surfaces of the magnetoresistive element.